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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,534	01/12/2006	Lukas Hacner	FR030077	1837
65913	7590	08/24/2007	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			VU, JIMMY T	
			ART UNIT	PAPER NUMBER
			2821	
			NOTIFICATION DATE	DELIVERY MODE
			08/24/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary

Application No.

10/564,534

Applicant(s)

HAENER ET AL.

Examiner

Jimmy T. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boys (6,459,218 B2) in view of Lebens (U.S. Patent 6,095,661).

Regarding claim 1, Boys discloses a device for lighting at least one light emitting diode (LED) (405) (Figs. 4-6) to be supplied with predefined minimum forward voltage and maximum current, comprising:

voltage supply means (col. 6, lines 33-35) for supplying voltage to the light emitting diode,

a pulse generator (602) (Fig. 6) for generating a cyclic pulse signal having predefined on-times and off-times,

a switch (503) (Fig. 5, col. 7, lines 39-40) controlled by the pulse generator to be turned on during said on-times to short-circuit the light emitting diode and turned off during said off-times,

an inductive device (501) (Figs. 4-6, col. 6, line 59) for being charged when the switch (503) is turned on and for increasing the forward voltage over the light emitting diode when the switch is turned off.

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Boys does not specific disclose the pulse generator, which is a pulse width modulator (PWM).

Lebens shows a method and apparatus for an LED flashlight as shown in figure 10 comprising a pulse generator (434, see Fig. 4), which is a PWM.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a pulse generator as a PWM as taught by Lebens employed in the device of Boys in order to provide a master clock to control and adjust a pulse width and length for a measuring an average light output.

Regarding claim 2, Boys discloses a device comprising a diode (510) before the light emitting diode to prevent the voltage over the light emitting diode from going down to zero (Figs. 5 and 6).

Regarding claim 3, Boys discloses a device wherein the inductive device (501) is a coil having an inductance defined by the number of light emitting diodes (405) (increasing/decreasing the number of diodes (405) would affect the current flowing through the inductor (501) [refer to the connection in Figs. 5 and 6]) and their maximum current and voltage requirements as well as the available frequency of the pulse generator (Figs. 4-6).

Regarding claim 4, Boys discloses a device wherein the cyclic pulse signal has a frequency from 0.1 kHz to 30 Mega hertz (col. 7, lines 39-50).

Regarding claim 6, Boys discloses a device wherein the switch (503) is a MOS FET (Fig. 5, col. 6, line 61).

Regarding claim 8, the method of lighting at least one light emitting diode (405) (Figs. 4-6) to be supplied with predefined minimum forward voltage and maximum current, comprising the steps of:

supplying a forward voltage to the light emitting diode (col. 6, lines 33-35). To be more specific, the supply voltage from the rectifier (403) (making DC voltage) is applied to the LED through the output of element (502).

generating a cyclic pulse signal (by generator (602) as shown in Fig. 6, col. 7, lines 39-40) having predefined on-times and off-times for controlling a switch (503) to be turned on during said on-times to short-circuit (col. 6, lines 61-63) the light emitting diode and turned off during said off-times,

charging an inductive device (401) when the switch (503) is turned on (Figs. 5 and 6 shown that switch (503) is used to control the current/voltage flowing of inductive device (501)),

increasing the forward voltage over the light emitting diode when the switch is turned off so that said forward voltage gets higher than the minimum forward voltage (when the switch 503 is in OFF stated, the current flowing through the light emitting diode is increased. As a result, the forward voltage over the light emitting diode is increased. It is noted that a forward voltage (in a diode) is just a voltage that results from the current in the forward direction, then when the current (I) is increased, the voltage would follows, $V=IR$).

Boys does not specific disclose the pulse generator, which is a pulse width modulator (PWM).

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Lebens shows a method and apparatus for an LED flashlight comprising a pulse generator (434, see figure 10), which is a PWM.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a pulse generator as a PWM as taught by Lebens employed in the device of Boys in order to provide a master clock to control and adjust a pulse width and length for a measuring an average light output.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boys ('218 B2) in view of Lebens ('661) and further in view of Weindorf (U.S. Patent 6,690,121).

Regarding claim 7, Boys as modified by Lebens discloses a battery-supplied apparatus comprising a device as claimed. Boys and Lebens are silent about the display. However, as evidenced by Weindorf, providing a display (display panel 104) (Fig. 1, col. 3, line 52) is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide the apparatus of Boys and Lebens with the display panel as taught by Weindorf in order to connect with the electrical device or control circuitry for controlling brightness of the illumination.

Response to Arguments

5. Applicant's arguments with respect to claims 1-4 and 6-8 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T Vu whose telephone number is (571) 272-1832. The examiner can normally be reached on M - F: 9 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571) 272-1662. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2800.

Jimmy Vu

August 16, 2007

 8/18/07

DOUGLAS W. OWENS
SUPERVISORY PATENT EXAMINER